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STATE OF MONTANA

BULLETIN

OF THE

Department of Health

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Vol. 11. APRIL, 1919 No. 4.

ANNOUNCEMENT

Owing to insufficient funds and office assistance, publication of the Bulletin has for past two years been somewhat intermittent. Beginning with this issue the regular monthly publication is resumed. It is the intention of the Department not only to render such regular reports as are necessary to keep local officials and boards of health in touch with departmental work, but also to maintain such character of reading matter as will popularize the Bulletin and make it a medium of public health information for every citizen of Montana. The Department welcomes contributions and suggestions for future issues.



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Published at Helena, by the State Board of Health.

"Public health is purchasable. Within natural limitations a community can determine its own death rate."

This Bulletin will be mailed to any person in Montana upon request, mailed to the Secretary of the State Board of Health at Helena.

STATE OF MONTANA

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John J. Sippy, M. D., Epidemiologist, Helena

MORBIDITY REPORT FOR MARCH, 1919

COUNTY	Spotted Fever	Small Pox	Tuberculosis	Diphtheria	Scarlet Fever	Measles	Typhoid Fever	Meningitis	Anterior Poliomyelitis	Whooping Cough	Influenza	Chickenpox
Beaverhead		4			3						5	
*Big Horn					1	3					2	
Blaine												
Broadwater											1	
Carter											1	
Carbon											3	
Cascade, Excl. of		7		4	11	17					21	
Great Falls		1			4	62	3				11	
Chouteau		5									156	
Custer		9			19							
Dawson		1			26							
Deer Lodge, Excl. of						4						
Anaconda		2		1							1	
*Fallon												
Fergus		18	1	1	50						223	
Flathead, Excl. of					6		1				12	
Kalispell		2			9	1					29	
Gallatin, Excl. of											4	
Bozeman						7					311	
Granite		2			10						3	
Hill		5			4	2	3					
Jefferson											99	
Lewis and Clark, Excl. of												
Helena		1		4	6						668	
Lincoln										8		
Madison											166	
Meagher											31	
Mineral					2							
Missoula, Excl. of					6							
Missoula City					10						71	
Musselshell		5			7	3		1			151	
Park, Excl. of					22						8	
Livingston					6	1					31	
Phillips												
*Powell												
*Prairie												
Ravalli		2		1	3							
*Richland												
Rosebud		5			2		1				1	
Sanders												
Sheridan		5			2	2					13	
Silver Bow, Excl. of				2	40	2						
Butte				1	23	2					29	1
Stillwater		1			10						3	
*Sweet Grass												
Teton				4		20					12	
*Toole												
Valley					2						2	
Wheatland		20			11							
*Wibaux												
Yellowstone, Excl. of												
Billings		2		3	26	3			3			
Tbc. San			11									
STATE TOTAL		97	12	21	328	122	8	1		11	2062	1

*No Report: Health Officers failed to perform duty.

DIVISION OF FOODS AND DRUGS

Laboratory Report January, February and March

W. M. COBLEIGH, Chemist

H. M. SHEA, Analyst

SUMMARY

Food and Drug Samples Analyzed

Article	Passed	Not Passed	Total
Meat	1	1	2
Milk	90	23	112
Gin	9	.....	9
Sulfuric acid	1	.....	1
Flour	3	.....	3
Bran and Shorts .....	.....	3	3
Apple cider	1	.....	1
Formaldehyde	1	.....	1
Vanilla flavor	1	.....	1
Lemon flavor	1	.....	1
Cereal	1	.....	1
Veterinary prescription .....	.....	.....	1
Oysters .....	.....	2	2
Canned peas	1	.....	1
Cream	1	1	2
Buckwheat .....	.....	1	1
Aspirin	2	.....	2
Wheat .....	.....	1	1
Sugar	1	.....	1
Mapleline	1	.....	1
Peaches	1	.....	1
Lard	3	1	4
Candy	1	.....	1
Rolled oats .....	.....	.....	1
Beverage .....	.....	.....	43
TOTAL .....	.....	.....	197

BEVERAGES

The summary of the food and drug samples analyzed shows that a large number of beverage samples have been examined during the period covered by this report.

After a laboratory investigation of a beverage has been completed, the interpretation of the analytical data can be made from two points of view. One interpretation can be made upon the provisions of the State Food and Drug Act and the second under the definitions and requirements of the State Prohibition Law. Below is given a list of the beverages examined. Analytical data is not included in the tabulation and no interpretations are given at this time. The data is now under consideration by officials charged with the responsibility of enforcing the prohibition law.

Lab. No.	Beverage	Manufacturer
F 7404	Rainer Special.....	Rainier Products Co., Seattle, Wn.
F 7405	Rainer Cereal	Rainier Products Co., Seattle, Wn.
F 7406	Bevo	Anheuser-Busch Brewg. Co., St. Louis, Mo.
F 7407	Cereal beverage	Unknown.
F 7414	Cerva	Lemp, St. Louis, Mo.
F 7415	Heilman's New Style	G. Heilman Co., La Crosse, Wis.
F 7416	Mead	Pabst Co., Milwaukee, Wis.
F 7417	Gund's	Gund Co., La Crosse, Wis.
F 7418	Cherry Roseleaf	Arrow Products Co., Peoria, Ill.
F 7419	Ginger cordial	Arrow Products Co., Peoria, Ill.
F 7420	Kuemmell, Pioneer Brand	Arrow Products Co., Peoria, Ill.
F 7412	Creme de Menthe.....	Arrow Products Co., Peoria, Ill.
F 7422	Horehound-lemon- pineapple	Arrow Products Co., Peoria, Ill.
F 7423	Ginger-peppermint	Arrow Products Co., Peoria, Ill.
F 7424	O-Port-O	Arrow Products Co., Peoria, Ill.
F 7425	Rumo	Arrow Products Co., Peoria, Ill.
F 7426	Apricot, Sunkist	Arrow Products Co., Peoria, Ill.
F 7427	Stomach Bitters.....	Arrow Products Co., Peoria, Ill.
F 7428	East India Hot.....	Arrow Products Co., Peoria, Ill.
F 7429	Whizz	Arrow Products Co., Peoria, Ill.
F 7430	Blackberry, Sunkist.....	Arrow Products Co., Peoria, Ill.
F 7431	Anti-Koff	Arrow Products Co., Peoria, Ill.
F 7432	Alco-Iron Bock.....	Western Beverage Co., Butte, Mont.
F 7433	Palestaff	Hemrich's Staff Products Co., Seattle, Wn.
F 7434	Bockstaff	Hemrich's Staff Products Co., Seattle, Wn.
F 7435	Lifestaff	Hemrich's Staff Products Co., Seattle, Wn.
F 7450	Elfenbrau	C. & J. Michel Brewing Co., La Crosse, Wis.
F 7451	Excelso	Hamm Exelso Co., St. Paul, Minn.
F 7453	Bevo	Anheuser-Busch Brwg. Assn., St. Louis, Mo.
F 7454	Beverage	Butte Brewing Co., Butte, Mont.
F 7455	Centennial	Centennial Brewing Co., Butte, Mont.
F 7456	Bevo	Anheuser-Busch Brwg. Assn., St. Louis, Mo.
F 7457	Malt Rainier	Rainier Products Co., Seattle, Wn.
F 7459	Whiskey	Unknown—Gave test for wood alcohol.
F 7490	Nekto	Cullen Ice & Beverage Co., Salt Lake City.
F 7492	Luxo	Henry Weinhard, Portland, Ore.
F 7500-09	(9 samples) Gin.....	Submitted by Sheriff Gallatin County.
F 7509	Pepp	Druggists Sundries Limited, Vancouver, Can.
F 7510	Jazz	Druggists Sundries Limited, Vancouver, Can.
F 7511	Skee	Druggists Sundries Limited, Vancouver, Can.
F 7535	Old Style Lager.....	Heilman's, La Crosse, Wis.
F 7550	Apple Cider	Submitted by C. Esgar, Sheriff Gallatin Co.
F 7568	Glacier Beer	Submitted by D. Thomson, Raymond, Mont.
F 7597	Exelso	Kalispell Brwg. and Malting Co., Kalispell,
F 7599	Fitger's	Hamm Exelso Co., St. Paul, Minn.
F 7600	Rainier's Special	Submitted by Northern Grocery Co., Havre
F 7602	Exelso	Rainier Products Co., Seattle, Wn.
F 7603	Exelso	Hamm Exelso Co., St. Paul, Minn.
F 7603	Columbine Ph.	Zang Co., Denver, Colo.
F 7604	Zang's WuerzbuergerPh	Zang, Denver, Colo
F 7606	Heilman's New Style	G. Heilman Co., La Crosse, Wis.
F 7608	Blatz, Pale Barma	Blatz, Milwaukee, Wis
F 7609	Blatz, Dark Barma	Blatz, Milwaukee, Wis
F 7610	Pablo	Pabst, Milwaukee, Wis.
F 7611	Heilman's New Style	G. Heilman Co., La Crosse, Wis
F 7612	Blatz, Dark Barma	Blatz, Milwaukee, Wis
F 7613	Blatz, Pale Barma	Blatz, Milwaukee, Wis
F 7614	Pepp	Druggist's Sundries Co., Limited
F 7615	Skee	Druggist's Sundries Co., Limited
F 7616	Jazz	Druggist's Sundries Co., Limited

Lab. No.	Beverage	Manufacturer
F 7617	Eagle Brew	E. Porter Brewing Co., Joliet, Ill.
F 7618	Richto	Richter Co., Escanaba, Mich.
F 7621	Pomax	Butte Brewing Co., Butte, Mont.
F 7622	Acme	Butte Brewing Co., Butte, Mont.
F 7624	Silver Foam	Julius Lehrkinds Brewery, Bozeman.
F 7625	Heilman's New Style	G. Heilman Co., La Crosse, Wis.
F 7626	Heilman's New Style	G. Heilman Co., La Crosse, Wis.
F 7627	Bevo	Anheuser-Busch Brwg. Assn., St. Louis, Mo.

ADULTERATED OLIVE OIL

As a result of the scarcity and high price of olive oil, a number of dealers thruout the country are putting on the market cottonseed, corn and other vegetable oils, labeled as olive oil. The Bureau of Chemistry, U. S. Department of Agriculture, has made a number of seizures and prosecution is pending in a number of cases at the present time.

Certain dealers have endeavored to evade the Food and Drugs Act by so wording the labels of their product as to convey the impression to the consumer that the product is olive oil, without stating directly on the label that it is olive oil.

These products are commonly labeled as "Salad Oil" or "Table Oil," or some other indefinite kind of oil. On the labels are displayed conspicuous pictures of olive trees or maps of Italy or other devices intended to suggest olive oil. In some instances the words "Cottonseed Oil" or "Corn Oil" are printed in very small type, in an inconspicuous place on the label. A cursory reading of the label, such as is usually given by the retail purchaser, would lead the average person to believe that the product was olive oil.

The practice of deceptive labeling, even though no directly false statements are made is in the opinion of the officials, a violation of the Foods and Drug Act. Seizures are being made and prosecutions instituted to check this form of deception and misbranding.

Consumers should carefully read the complete labeling of articles of food, which they purchase.

MIXED FEEDS

The division of Foods and Drugs has recently had occasion to make laboratory examination of several samples of mixed feeds, such as bran and shorts. The examinations show that there is a tendency to adulterate such feeding stuff, thru the addition of "screenings." Several samples showed such added material without any statement of the fact being made upon the label.

Some dealers are not aware that the investigation of this class of feeding stuff comes within the jurisdiction of the Food and Drug Division of the State Board of Health. For the information of those interested, in the manufacture and sale of feeding stuffs as well as those officers charged with the inspection work, it may be stated that the Food and Drugs Act of 1911 defines "food" to be "any article used as food drink, confectionery, or condiment by man or other animals, whether simple, mixed or compound."

Section 2, Chapter 130 Session Laws 1911, provides that a food is adulterated if: "Any substance or substances have been mixed with it so as to reduce, or lower, or injuriously affect its quality or strength" or "if any substance has been wholly or in part substituted for the article"

Section 8, Chapter 130, provides that a food is misbranded if "it be labeled or branded so as to deceive or mislead the purchaser" of "if the package containing it, or its label, shall bear any statement, design or device regarding the ingredients or the substances contained therein, which statement, design or device shall be false or misleading in any particular."

WILSON'S ANTI-FLU SOLUTION

One of the more recent seizures made by the Bureau of Chemistry, under the Federal Food and Drugs Act for the interstate shipment of misbranded drug preparations, is that of Wilson's Anti-Flu Solution. Analysis by the Department showed this product to consist essentially of oil of eucalyptus, thymol and methyl salicylate.

The article was advertised as "a powerful antiseptic to be used as a preventative against influenza, colds and grippe."

In two or three instances, peddlers have appeared in Montana cities with patent preparations, for the prevention or cure of influenza, but such parties have been effectively handled by local authorities. If such fakirs were permitted to operate, it is a safe bet that the sale of such preparations would exceed that of "Wild Cat" oil stocks.

One flu-cure which was offered for sale in Butte, was labeled as follows: "The Life of Blood, Microbe Killer, Health Vitalizer; A Scientific Discovery; Kills poisons in the blood; Oxygenated; Directions: One teaspoonful 3 times a day in one-half wineglassful of water."

Examination of the product showed it to be a dilute solution of aromatic sulphuric acid, artificially colored with the vegetable dye, cudbear. No manufacturer's name appeared upon the label, but investigation disclosed the fact that a local drug firm was supplying the preparation upon a formula held by the party selling the same.

A fine of \$100 was imposed by the court upon this salesman. The margin of profit, up to the fine, must have been good, for the article, a six ounce bottle, retailed at one dollar per.

There was a young lady named Perkins
Who was very fond of gherkins,
She went to a tea
And ate twenty-three
And pickled her internal workin's.

—J. A. M. A.

The Annual Egg Waste

A. E. ICE, State Food Inspector,
Kansas State Board of Health.

The egg as a food product has come into such universal use as to be looked upon as a food necessity. The unprecedented high prices of the past year therefore made an impression upon the pocket book of every consumer and provoked wide spread discussion and inquiry as to causes. Storage for speculation became a topic of daily condemnatory articles in the public press, and doubtless these were not wholly unmerited. However, the law of supply and demand continues to be an influential factor, if not the main one, in the sale of all products, and it is only through a restricted production that storage and speculation becomes possible. At a time when food production and conservation has become a matter of grave public concern, it may be surprising to many to learn that the scarcity of eggs (as compared with the demand) is due in a large measure, not to a restricted production, but to an alarming waste.

The annual waste of this most important food article amounts to millions of dozens and for the most part is due to preventable carelessness in handling. Since the consumer buys largely for his immediate needs, the responsibility for conserving the waste must rest upon the three factors in the usual process of marketing, viz., the poultry man or producer, the local buyer or merchant, and the wholesaler or the produce commission house. Nor can any of these escape some degree of censure for careless methods, both in preservation and in marketing.

Few persons realize the entire extent of the cost of egg production, but this involves the first cost of eggs to be hatched by hen or incubator, time and care in hatching process, the brooding of chicks, and the expense and labor of housing and feeding, all to raise hens largely for egg production. After all this, and considering the seriousness of the food situation, to fail to give the eggs produced the care they should have would seem to merit severe condemnation. With the hope of directing some attention to conservation the following suggestions are offered:

FIRST: In hot weather, and after the breeding season, all roosters should be sold or placed in separate pens. This at the outset will obviate 80 to 90 percent of the trouble. This percentage of eggs, if roosters are permitted to run with flock, will be fertile. Fertile eggs at incubator temperature become **blood rings**. Decomposition sets in quickly and these eggs become **rots**, which might have been saved by "swatting the rooster." Eggs should be gathered once daily; twice daily in hot weather. They should be stored in

cool place, preferably in cellar or cave, and kept on table or bench so that air will circulate freely about them. They should not be allowed to set on ground or damp floors. Egg shells are porous and easily penetrated by moisture. Result is a **mould spot** causing a **stuck-to-the-shell** and **black spots**. This phase of improper storing is perhaps the next greatest cause of loss in innumerable instances. Market eggs often—once a week is not sufficient in hot weather. Producers will find it to advantage to always use the oldest eggs and dirty shell eggs. The latter, while equivalent in food value, do not sell so readily, and when the production is small and the top or fresh eggs are being used, the bottom or old eggs are held too long and are marketed as being of poor quality or rots. A little attention to these details at the proper time will result in an enormous saving.

SECOND: Local dealers should observe the same precautions in storage as the producer. Perhaps the greatest fault of the local dealer is that of holding eggs too long, either waiting for large accumulation for shipments, or for advance in prices. Holding small accumulations in the late fall or early winter results in fair to poor quality eggs becoming shrunken, stale and unworthy the name of fresh eggs when they reach the consumer. In far too many instances (one is almost tempted to say in the majority of them) the advance in prices fails to compensate for the loss by deterioration through long storage. Dealers should ship every day in hot weather and often in fall and early winter. By doing so his losses will be reduced to a minimum provided he is buying from customers who have segregated the roosters. If they have not, he should insist that they do so.

Local dealers should be prepared to candle. A convenient place can always be prepared in a corner of the cellar, or if no cellar, a corner of the store room can be darkened by the use of a light, cheap frame covered with black cloth, with black drop curtain behind the candler. A bench or table of convenient height should be provided. Any box can be used in which are cut two holes, smoothly bevelled, about the size of a half dollar. If no electric current for light is available, current for low voltage bulb can be secured by using a series of 4 to 6 wet cells, or eight to twelve dry cells batteries, and bulb can be dropped in box as described. There are several moderately priced candling cabinets on the market.

Properly equipped the local dealer should candle all eggs on receipt from the producer. All eggs candled out should be returned to the producer, since frequently some will be good enough for immediate use, although they would not be considered good enough to hold until they can reach the market. At the beginning of and at intervals during the season, the dealer will find it advantageous to pay for occasional lots of eggs candled out, and school himself and his clerks by carefully looking at each egg in cabinet, and then breaking it in saucer or pan to see if his observations were correct. It is not sufficient to break an occasional egg. If six to ten dozen are candled out, they should all be broken out and classified as black-rot, black-spot, stuck-to-the-shell, blood-ring, blood-white, green-white,

mixed-rots, doubtful and edible eggs. This method will prove a valuable education and by a little practice and careful observation one can soon become a proficient candler. Breaking out a lot now and then, however, should be a regular practice even by experienced candlers, especially as the season changes from spring to summer, and from summer to fall.

In making shipments local dealers should study train schedules and arrange shipments so as to involve shortest possible time in transit. Trainmen should be urged to give careful attention to expedient deliveries. Late Saturday consignments are to be avoided unless it is known that refrigeration facilities are to be obtained. In extremely hot weather and especially in those shipments from small towns or branch lines, many eggs become deteriorated by Sunday hold-overs in heated freight rooms and box cars.

THIRD: Wholesalers are responsible for a large amount of waste through lack of careful candling. Indeed, many observations tend to confirm one in the belief that the majority of commission egg houses are flagrantly lax in providing experienced and competent candlers. While the instance is one of three extreme ones which were observed, yet out of one case of eggs thrown out by the foreman of the eggroom, it was found on breaking out that 88% were not rots. Many experienced candlers have made great profits by buying from large egg houses many thousands of cases of rots (?) or rejects at 25c per case, and by recandling have secured many No. 1, No. 2 and break-stock eggs. Besides what have been bought and recandled doubtless as many more thousands of cases, containing equally as many good eggs, have been hauled to the dump as an absolute waste.

One does not like to harbor the suspicion that this carelessness on the part of the wholesaler is due to the fact that he does not expect to pay for the rejects, hence his lack of interest in the selection and training of candlers, and his failure to maintain proper supervision over them. Perhaps some of the waste is due to the fact that candlers are loaded down with other duties and are unable to give the attention to the candling process that they should. Old candlers throw out a few good eggs because of rapidity of candling; newer candlers will vary in proportion to interest and adaptability. New recruits should have special training and individual instruction, and all candlers should pursue the tactics recommended for local dealers, that is, a systematic breaking out of rejects at intervals during the advancing season to confirm or correct their judgment on eggs thrown out.

Foreman should feel it a great responsibility to see that all his assistants learn to candle well, in justice to customers who have entrusted to them their shipments of eggs which have cost much effort and money, and for which every cent possibly should be remitted. Not to honestly and conscientiously care and make all possible remittance for eggs is the worst form of injustice and misuse of trust placed by the shipper in his chosen egg dealer.

It is recommended that all egg houses should have each candler

to keep all eggs candled out of each case in separate case and mark loss from each case on a division board, giving name of the candler, date, number thrown out and name of shipper. This record should be held by all egg houses 24 hours, should correspond to office records and remittance sheets and should check exactly with same. Further, these should be open for examination by State Food Inspectors at any time. This arrangement should result in more carefulness, irregularity would be reduced to the minimum, over-buying would cease and all candlers would be supervised and brought up to the highest state of efficiency.

Traveling hucksters are also responsible for a great amount of waste and a severe injustice to local dealers by their acceptance of eggs without candling. In one specific instance in a lot of 24 cases bought by hucksters from farmers, part of which were shipped and part hauled to the commission houses, only nine cases were under 18 rots to the case, fifteen cases were 18, some of them as high as 19 dozen to the case. These eggs were bought from the farmer at their doors at 20 cents per dozen. In the extreme instance, the loss was practically \$4 per case. Here lack of care on the part of the huckster did a great injustice to the local dealer who was obliged to enter into competition and was equipped for candling. Such carelessness on the part of the huckster will demoralize a whole section and a number of towns and dealers. State Food Inspection Departments will do well to devote more attention to this class of the careless buyer and producers are urged not to give encouragement by selling to them.

It is to be hoped that a great waste of the past may in great measure be avoiding during the present season and that all parties engaged in the production and marketing of eggs will concentrate their attention in the saving of a good food product that will be greatly needed.

Every baby has the right of legal proof of its parentage Is your baby registered?

A birth certificate is essential to prove heritage and to protect the property rights of the child. Is your baby registered?

Care for the rights of childhood is the best index to a state of civilization. Is your baby registered?

Food Dealer's Obligation to Protect the Consumer is Personal

Judgment for the defendant in the "pig's feet" case from Missoula was sustained by the supreme court yesterday in the opinion of the court, delivered by Justice W. L. Holloway. Damages of \$10,000 were awarded and this phase of the appeal was also upheld. The case was brought by Lillie M. Kelly against John R. Daily Company.

Hugh Kelly, husband of the plaintiff, purchased from the defendant six cooked and spiced pigs' feet for food for his family, consisting of himself, his wife and two sons. On the day following the members of the family ate of the meat and immediately the husband, wife and one son became ill. Plaintiff sought damages and prevailed in the district court. The defendant appealed from the judgment and from an order denying its motion for a new trial.

The decision of the court also said:

"It is sufficient for the purpose of the case to say that the pure food and drug act is a general police regulation which recognizes the fact that the sale of adulterated food stuff is a constant menace to health of the consuming public. The duty imposed upon the vendor is one which extends to the public, considered as a composite of individuals and if the plaintiff sustained some special injury by reason of defendant's violation of the statute, her right to recover cannot be questioned."

In settling further contentions of a retailer under the pure food and drug act, the court said:

"The obligation imposed by the statute is personal and cannot be avoided by showing that the impure food was purchased from a foreign concern and bore the stamp of approval of the government inspectors."

—Helena Independent, May 11, 1919.

I've a clock of silver, a marble clock,
And a clock with a cuckoo gay;
But the moments vanish, flock by by flock,
Masses of work my labors mock,
For, alas! I never have found a clock
That goes the other way.
Never any kind of a clock
That ticks toward yesterday.

—Selected.

Division of Water and Sewage

Laboratory Report January, February and March.

W. M. COBLEIGH, Chemist and Director
H. B. FOOTE, Bacteriologist

SUMMARY

	Number
I Laboratory Investigation of Water Supplies	
1 Public water supplies.....	101
2. Private water supplies	5
II Classification of Water Samples Analyzed	
1. Bacteriological	348
2. Chemical (Sanitary)	14
III Field Investigations or Sanitary Surveys	
1 Public water supplies	32
2. Private water supplies	0

The regulations governing the operation of the water laboratory provide for complete periodic investigations of all public water supplies in the state. A complete investigation consists of a careful inspection of the physical environment of all parts of a given water system from the sanitary aspect as well as observations on the method of operation. At the same time a series of samples are taken to represent the qualities of the water in all parts of the system.

A complete investigation of this character is conducted at each public water supply in the state once in six months. More frequent periodic examinations are made of water samples collected by local officials who are appointed by the State Board of Health.

On completion of a field and laboratory investigation of a given water system, a complete report is prepared and forwarded to local officials who are responsible for the water supply. In reports of this character each water system is given a definite classification. On the basis of facts brought out in the investigation, a supply is classed as "approved" or "unapproved." Definite recommendations are made relative to the physical environment, construction, location, and operation of a water plant that cannot be placed on the "approved" list of public water supplies.

During the period covered by this report 101 sets of water samples from public water supplies have been examined and 32 water plants have been inspected.

Field investigations of public water supplies were conducted in the following cities and towns.

Billings
 Columbia Falls
 Cut Bank
 Eureka
 Great Falls
 Harlowton
 Judith Gap
 Kalispell
 Laurel
 Lewistown
 Libby
 Livingston (Municipal)
 Livingston (Monida Trust)
 Melstone

Moore
 Rexford
 Roundup
 Sheridan
 Somers
 Shelby
 Three Forks
 Troy
 Twin Bridges (Municipal)
 Twin Bridges (Orphans' Home)
 Warren
 Whitefish
 Whitehall
 White Sulphur Springs

Water utilities furnishing water for public consumption and owned by railway companies were inspected at the following points:

Laurel—Northern Pacific Railroad
 Melstone—Chicago, Milwaukee & St. Paul Railroad
 Harlowton—Chicago, Milwaukee & St. Paul Railroad
 Judith Gap—Great Northern Railroad

As a result of recent investigations of the water supplies listed above the following classifications have been made.

I The public water supplies of the following cities have been placed on the "approved" list. These supplies have a satisfactory physical environment and the water requires no purification.

Columbia Falls	Three Forks
Harlowton	Twin Bridges (State Or-
Judith Gap	phans' Home)
Kalispell	White Sulphur Springs
Lewistown	Whitehall
Libby	Whitefish (Proposed new
Moore	supply)

The city of Whitefish has been securing water for some years from Whitefish Lake. The purity of this water was under suspicion and therefore, it has been decided to abandon this source of supply. The municipal plant will, in the near future, draw water from Snyder and Second Creeks. These sources have been placed on the "approved" list of public water supplies.

II Following is the list of cities inspected during the period of this report, the public water supplies of which are "approved" because of the installation and satisfactory operation of water purification plants:

Laurel—(Northern Pacific Plant)
 Disinfection
 Billings—Filtration and disinfection
 Great Falls—Filtration and disinfection

III The following is a list of cities the public water supplies of which have installed purification plants but recent inspections show that these plants do not meet all the requirements of the State Board of Health. Final ap-

proval is, therefore, deferred pending certain alterations that have been recommended for each plant or pending the satisfactory operation of the equipment now in use.

Laurel—(Municipal) Calcium hypochlorite disinfection

Livingston—(Monida Trust Co.) Liquid chlorine disinfection

Livingston—(Municipal) Filtration and the liquid chlorine

Melstone—Calcium hypochlorite disinfection

- IV The water supplies of the following cities have not been definitely classified. Recent investigations do not give conclusive data. Final classification will depend on future field and laboratory investigations:

Eureka

Cut Bank

Shelby

Rexford

Roundup

Twin Bridges (Municipal)

- V The public water supplies of the following cities have not been approved. Approval has been withheld pending the installation of improvements or making alterations which have been specifically recommended for each plant:

Somers

Sheridan

Warren

Sheridan: The source of water for the Sheridan water plant is Indian Creek. When the intake to the water system was first located, it was placed above all human habitations. However, in recent months a farm habitation has been established on Indian Creek above the intake. The sanitary aspect of this water supply has therefore been materially altered. The presence of the farm habitation introduces an element of risk. This risk is such that the Board of Health cannot carry this supply on the approved list at this time. Since the farmer who established his home on the creek, no doubt, has done so with perfect legal rights, it appears that it will be necessary for the officials of Sheridan to take some action.

One of the following procedures is recommended:

1. Extend the intake of the water system to a point above the farm habitation.
2. Install a liquid chlorine disinfection apparatus and purify the water before it is delivered to the consumer.
3. Buy the rights of the farmer who has established his home on Indian Creek and thus secure control of that part of the watershed by purchase.

Neither changing the intake nor buying the rights of the farmer would give permanent solution to the problem provided there is still more land above the intake upon which farmers might settle. Therefore, the problem deserves careful consideration from several points of view.

Somers: The source of water for the Somers water plant is the Flathead Lake. The lake is naturally subject to contamination from a variety of sources. It is recognized that the contamination reaching the lake is highly diluted. This dilution materially reduces the risk involved in using water from the lake for public consumption. However, the fact still remains that a definite risk is involved.

This risk could be reduced to a minimum by the installation and operation of a liquid chlorine disinfection plant. This is the recommendation of the State Board of Health and was transmitted in a report dated July 17th, 1917

GOING FISHING?

Victory loan complete—war tension relaxing—recollections of postponed vacations—spring days flavored with warm sunshine, the odor of lilacs and the drone of bees—visions of mountain streams tumbling over rocks and seeking refuge under green willows, with brook trout flashing like shafts of sunlight over riffles and out of deep pools—a hurried search for stored fly-rods—a honk of horn and hum of motor—and the call of the out-of-doors is answered.

But, before you go:—Now, don't accuse us of trying to take the joy out of life, for we encourage vacations, and we want you to take every advantage of Montana summers, for none of us spend the time in the open that we should. Besides, if we must hang crepe, we'd rather hang a little now as a note of warning, then to hang it later in a dirge of regret. So, before you go fishing or camping, or touring, heed our admonition—

BE VACCINATED AGAINST TYPHOID FEVER.

A little time, a little expense—the ounce of prevention—beats six weeks in the hospital and a possible funeral. The U. S. Army medical department took the precaution to immunize every one of three million soldiers against typhoid infections, and the disease, once the scourge of armies, became almost unknown. If it was good for Uncle Sam's boys in uniform, it ought to prove just as useful to civilians. In addition to typhoid immunization, (which, by the way, gives no license for flagrant carelessness in sanitary matters),

BE CERTAIN OF A PURE DRINKING WATER SUPPLY.

Because the water of mountain streams looks clear and sparkling it does not always follow that it is pure or safe to drink. It is surprising how many people, either ignorantly or wilfully, disregard the laws of sanitation and even of common decency, in their disposal of body waste and sewage. Because such are located around the bend of the creek out of sight, the quality of the water below them is just as dangerous as if you know of the source of pollution. A recent investigation of a popular summer resort near one of the state's largest cities, disclosed a common practice of locating toilets on the

banks of the stream from which the entire camp and many fishermen below derived their drinking water supply. Such water accounts for many cases of typhoid fever and other intestinal diseases of "unknown origin."

Regard all surface waters as unsafe unless it is well known they are above human habitation, and take every precaution to render them safe before consumption. When camping water may always be made safe by boiling. If facilities for boiling are absent the following simple solution may be used:

Take a level teaspoonful of chloride of lime (bleaching powder, purchasable at any drug store) add a few drops of water and make a thin, smooth paste in a teacup. Dilute this paste with foul cupfuls of water. Place this stock solution in a clean bottle and cork tightly. Use a teaspoonful of this stock solution to two gallons of water or one or two drops to the average cupful. Stir well, and use in from a quarter to half an hour. If the water has slight odor of chlorine, use slightly less of stock solution. If all chlorine is not absorbed or given off in ten or fifteen minutes, remainder is harmless.

Carry a small vial of this solution on your fishing and camping trips and USE IT.

BETTER BE SAFE THAN SORRY.

TO PHYSICIANS AND HEALTH OFFICERS.

The State Hygienic Laboratory is now equipped to perform the Wassermann test twice each week, viz., Tuesday and Friday. If a sufficient number of specimens are forwarded to the Laboratory the test will in all probability be performed three times a week.

Article 3 of Section 473 of the POSTAL LAWS AND REGULATIONS reads as follows: "No package containing diseased tissue shall be delivered to any representative of any said laboratories until a permit shall have first been issued by the Postmaster General, certifying that said institution has been found to be entitled in accordance with the requirements of this regulation to receive such specimens."

This Laboratory has a permit in accordance with the foregoing. In order to insure receipts of specimens in containers in compliance with the above law we are obliged to furnish our own containers. No specimens will therefore be examined unless forwarded in the containers supplied by the State Laboratory.

The information requested on the data card supplied with the containers must be furnished. These outfits can be obtained from your local health officer, or from the Laboratory direct. Enough will be kept at the Laboratory to supply all needs. We have sent for sufficient copies of Reprint 438 from the Public Health Reports to supply every physician in the State. This reprint contains the laws and regulations relating to public health laboratory specimens and also much valuable information relating to specimens for laboratory diagnosis in general.

A. H. McCRAY, M. D., Director of the Laboratory.

Attention! Local Registrars

Please remember that certificates of births and deaths constitute evidence of legal record. They are essential not only for public health purposes but for the protection of property rights. Carelessness on your part in obtaining complete details called for on the certificate may deprive some one of a heritage. The State Registrar is compelled by law to demand of local registrars full and complete data, without which he cannot certify the usual fees allowed to local registrars for collection of such records. If local registrars are negligent in these matters they should not quarrel with the Division of Vital Statistics for insisting upon complete records, but should remember that, after all, the State Registrar is only trying to protect them in obtaining full compensation for duties performed. It pays to take a little time and perfect the information called for.

"THE SONG OF THE FLY."

The Butterfly's a free-lance and the Bee a buccaneer,
And the Dragonfly's a pirate lurking in each hidden nook:
The Katydid's a gossip, clacking loud for all to hear,
But—the Little Harmless Housefly—I'm the villain of the book.

My life begins in filth-piles which the shiftless men ignore;
I fatten on the loathsome mess until my wings appear;
Then out into the daylight, ubiquitous I soar,
With liberty unbounded on my murderous career.

I love to haunt the stable—which they never think to screen,
Or spend a crawling hour in the open-work latrine,
Then hasten to the kitchen with a stimulated zest.
And sample every dish to find which one I like best.

I feast in sick-room vessels—pause to taste a pool of spit,
Explore a pauper's festering sores—torment of mangy pup,
Then with my deathly freighted toes my whilom way I flit
To pantry or to dining-hall or to a drinking-cup.

I dabble o'er a carcass—its putrescence is a treat;
Then away to taste the sweetness of a sleeping baby's lip,
I'm an instrument of murder and my weapons are my feet,
For I leave my trail behind me wheresoe'er I pause to sip.

So childless breasts and aching hearts come stalking in my wake,
And graveyards yawn expectantly because men let me live;
From high and low, from rich and poor, my ghastly toll I take:
To age nor youth nor helpless babe no quarter do I give.

So it's ho! for hall and hovel—you may find me everywhere,
Man's menace from the moment when he draws his natal breath;
Created in a dung-hill, yet I come to cleave the air—
The Special Agent of Disease—the Courier of Death.

—N. C. HEALTH BULLETIN.

TALK WITH YOUR DOCTOR. 99003

We are just emerging, and only partly victorious, from an epidemic that has not overlooked a community in the entire country. The number of deaths due to influenza and its after-effects reaches into the hundreds of thousands and the semi-invalids more than double these figures. And the point of danger is not yet passed. There have been recurrences of the outbreak in different localities and Missoula is no exception.

The insidiousness of the disease should be a warning signal to everyone who has it and apparently has recovered. In the majority of cases it has left some organic weakness that must be watched and corrected.

But the effects from this malady are perhaps no worse and no more dangerous than those brought on through our customary modes of living. The most widespread disease of adults is cardio-vascular degeneration—wearing out of the arteries and heart, and the inevitable expression of this wearing out either is hardened arteries, Bright's disease, apoplexy or slow, insidious heart muscle failure.

The development of these is so slow and pernicious that generally the victim does not suspect their presence until the breaking point is reached. Usually some accident or intercurrent illness is required to bring the patient under the observation of a physician and often the degeneration is far advanced before the accident occurs, so that there remains for the doctor only a chance to keep the patient comfortable as long as possible.

And the public, which is fond of cracking jokes about the doctor with his pills and potions, consumes each year thirty times as much medicine—pills and potions—as the entire medical profession prescribes. This means that when a person does not "feel right," instead of going to a physician for expert advice, he goes to a friend with his trouble—the said friend prescribing for him some medicine that may or may not be a suitable remedy for the trouble.

When you reach 35 and begin slowly to accumulate weight, fall off in general efficiency, become a bit shortwinded on exertion, have stomach distress in the form of excessive belching, "gas," fullness after meals and numerous other symptoms attributed in almanacs to the liver, you are very likely on the way to a breakdown from cardio-vascular degeneration. And the remedy? If your case has gone too far, there is none. If not, select a competent physician, one not afraid to call a spade a spade, put your case in his hands, do what he tells you to do and start the fight for life.

The purpose of this is not to scare the public into a fit of worry—our nerve has been shaken badly enough during these past six months—but to call attention to the necessity of watching and guarding against bad health possibilities. The present generations are, probably, suffering from some of the indiscretions of their forebears when heavy breakfasts were the rule—when exercise of the proper kind was regarded as a fad. We are making a good fight against tendencies we have inherited physically and with the proper amount of precaution there is no reason why length of life should not be increased. While the matter of health primarily is a subject for the individual, yet it is a social question as well. And we must do one thing and refrain from doing another as much from the standpoint of our close relations with our fellows, whether it is good or bad, as we do or do not do it because it is beneficial or harmful to ourselves.

Take care of the little ailments and the bigger ones will never have to be attacked.

—Daily Missoulian, April 21, 1919.

BREVITY.

Caesar's famous "Veni, vidi, vici" had nothing on the message of this doughboy who recently returned from France and telegraphed enthusiastically to the folks at home, "Deloused, demobilized and delighted."

WHO AM I?

I am as old as the first man and as young as the last born babe—ever changing and unchanged. Where human intercourse is possible there may I be found.

I devastate cities and countries and continents. Athens I robbed of her glory and Rome of her strength. I conquer the armies of conquerors.

I laugh at barriers and bars and bolts. I penetrate both hovel and palace and ravage the frames of the young, the old, the weak, and the robust with equal delight. I feel no pity for age, nor sex, nor beauty, nor rank.

I assume many forms, and those whom my first malevolent touch has left weak and defenseless, I seek, ghoul-like, in other guise, again and again to destroy. Cooing infancy, laughing childhood, ambitious youth, happy motherhood, protecting fatherhood and contented age—all these I garner in my remorseless harvest.

Where ignorance, poverty, dissipation or physical stress prevail I take my greatest toll. I am insidious, insatiable, malignant—the unceasing enemy of all mankind.

To the superstitious and the uninformed I am inscrutable, but my clandestine methods of travel and approach cannot withstand the enlightenment of men. Where publicity and education exist, there I do not prosper.

I avoid those with clean lives and careful habits. I languish before the investigation of science, which steals away my virulence.

I can be banished by organized community effort, and when this shall be accomplished my name will lose its potency of mystery and fear, and my ravages cease—for I am

CONTAGION

—J. J. S.